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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,574	09/15/2003	Koichi Okada	520.43141X00	7967

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EXAMINER

CASIANO, ANGEL L

ART UNIT PAPER NUMBER

2182

DATE MAILED: 01/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/661,574

Applicant(s)

OKADA ET AL.

Examiner

Angel L. Casiano

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>20041222</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The present Office action is in response to application dated 15 September 2003

Claims 1-6 are pending.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 22 December 2004 was filed after the mailing date of the application on 15 September 2003. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject

matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-2 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ofek et al. [US 2002/0004890 A1] in view of Craft et al. [US 6,687,758 B2].

Regarding claim 1, Ofek et al. teaches a method (see Abstract) for controlling an interface command of a disk apparatus of a computer system including one or more host computers (see Figure 5, "1" and "2"), an old disk apparatus connected prior to said host computers, and a new disk apparatus newly connected to said host computers (see Figure 5,

“donor storage device 14” and “target storage device 16”), comprising the steps of: changing-over and connecting said old disk apparatus to said host computers and executing data migration from said old disk apparatus to said new disk apparatus (see Page 7, [0082]); identifying a command for inquiring disk identification as an interface command from said host computers and a command for inputting and outputting data; and sending said command for inquiring said disk identification said old disk apparatus (see “FROM” and “TO” commands; Page 7, [0082]).

However, the reference does not teach the use of a switch for connecting to the disk apparatus and host computer. As for this limitation, Craft et al. teaches a switch for migrating a connection from one port to another (see “switch 37”, “INIC 22”, and “INIC 25” in Figure 1; column 5, lines 30-34). At the time of the invention, one of ordinary skill in the art would have been motivated to combine the cited disclosures in order to obtain a method capable of determining which port to employ in network connections and controlling migration between NICs, as taught by Craft et al. (see column 2, lines 6-10).

As for claim 2, Ofek et al. teaches data migration from an old disk to a new disk apparatus. The reference does not teach the use of a switch for connecting to the disk apparatus and host computer, as claimed. Craft et al. teaches a switch for migrating a connection from one port to another (see Figure 1). This reference also teaches executing a data migration function of this switch (see column 5, lines 30-34). A person of ordinary skill in the art would have been motivated to combine the cited disclosures for the reasons set forth above.

Regarding claim 4, Ofek et al. teaches a system (see Abstract) for controlling an interface command of a disk apparatus of a computer system including one or more host computers (see

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Figure 5, “1” and “2”), an old disk apparatus connected prior to said host computers, and a new disk apparatus newly connected to said host computers (see Figure 5, “donor storage device 14” and “target storage device 16”). The cited system is capable of changing-over and connecting said old disk apparatus to said host computers and executing data migration from said old disk apparatus to said new disk apparatus (see Page 7, [0082]); identifying a command for inquiring disk identification as an interface command from said host computers and a command for inputting and outputting data; and sending said command for inquiring said disk identification said old disk apparatus (see “FROM” and “TO” commands; Page 7, [0082]).

Nonetheless, the reference does not teach the use of a switch for connecting to the disk apparatus and host computer as part of the system. As for this limitation, Craft et al. teaches a switch for migrating a connection from one port to another (see “switch 37”, “INIC 22”, and “INIC 25” in Figure 1; column 5, lines 30-34). In addition, the switch includes connection with a fibre channel (see Figure 1, 32-35; col. 2, lines 32-35).

At the time of the invention, one of ordinary skill in the art would have been motivated to combine the cited disclosures for the reasons set forth above.

As for claim 5, Ofek et al. teaches host computers sharing one old disk apparatus (see Figure 5, “14”, *donor*).

As for claim 6, Ofek et al. teaches that the “donor” (*older data storage system 14*; Page 2, [0029]) is replaced partially. Thus, it could be reused after the migration.

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8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ofek et al. [US 2002/0004890 A1] in view of Craft et al. [US 6,687,758 B2] in further view of Kleiman et al. [US 2003/0237019 A1].

As for claim 3, the combination of references (Ofek et al. in view of Craft et al.) does not teach an old disk apparatus and a new disk apparatus operating by a SCSI command from the one or more host computers, as claimed. As for this limitation, Kleiman et al. teaches a file system 120 using a SCSI "write same" command for directing a migration target (Page 4, [0047]). Therefore, this operation avoids inconsistency. At the time of the invention, one of ordinary skill in the art would have been motivated to modify the combination of references, since the Kleiman et al reference "*saves on activity by the disk 141 and on bandwidth between the file system 120 and the storage system 140*" (emphasis added, Page 4, [0047]).

Conclusion

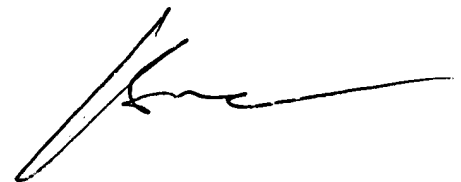
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angel L. Casiano whose telephone number is 571-272-4142. The examiner can normally be reached on 9:00-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on 571-272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alc
19 December 2005



KIM HUYNH
PRIMARY EXAMINER

12/22/05